

## REMARKS

In the Office Action dated September 27, 2005, claims 1-7, 12, 17, 18, and 20-24 were rejected under 35 U.S.C. § 103(a) based on U.S. Patent No. 6,006,706 ("Kanzaki") in view of U.S. Patent No. 6,135,073 ("Feucht"). Claims 13 and 14 were rejected under 35 U.S.C. § 103(a) based on Feucht in view of U.S. Patent No. 5,611,304 ("Shinojima"). Claim 19 was rejected under 35 U.S.C. § 103(a) based on Kanzaki in view of Feucht, and further in view of Shinojima. Claims 8-11 were rejected under 35 U.S.C. § 103(a) based on Kanzaki in view of Feucht and further in view of U.S. Patent No. 6,267,097 ("Urushihara").

Claims 1-38 are pending in this application. By this Reply, Applicants have amended the specification to make minor corrections. Additionally, claims 1-4, 17, and 25-29 have been amended. Claims 35-38 have been added. The specification fully supports these amendments. For example, at least Figures 7-9 provide support for at least some of the amendments. No new matter has been added.

### Rejections under 35 U.S.C. § 103(a)

Applicants respectfully traverse the rejection of claims 1-7, 12, 17, 18, and 20-24 based on Kanzaki in view of Feucht, the rejection of claims 13 and 14 based on Feucht in view of Shinojima, the rejection of claim 19 based on Kanzaki in view of Feucht, and further in view of Shinojima, and the rejection of claims 8-11 based on Kanzaki in view of Feucht and further in view of Urushihara. No *prima facie* case of obviousness has been established at least because the proposed combination of Kanzaki and Feucht and the proposed combination of Feucht and Shinojima fails to disclose or suggest every one of the features recited in independent claims 1, 13, and 17.

### Claims 1-12 and 17-24

Applicants respectfully submit that the Section 103(a) rejection of independent claims 1 and 17 should be withdrawn because the Office Action does not establish a *prima facie* case of obviousness. As stated in M.P.E.P. § 2142, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” To establish *prima facie* obviousness under 35 U.S.C. § 103(a), three requirements must be met. M.P.E.P. § 2143. First, the applied references must teach or suggest each and every element recited in the claim. Id. Second, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify the references in a manner resulting in the claimed invention. Id. Third, a reasonable expectation of success must exist. Id. Moreover, the teaching or suggestion and the reasonable expectation of success “must both be found in the prior art, [and] not [be based on] applicant’s disclosure.” Id. (citing In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

As acknowledged in the Office Action on page 3, Kanzaki “fails to disclose [a] fluidically driven actuator coupled to a high pressure hydraulic fluid source and a low pressure hydraulic fluid source.” In the Office Action on page 3, the Examiner asserted that one would incorporate the high and low pressure sources of Feucht in Kanzaki “in order to achieve recuperation of energy.”

Contrary to the assertion in the Office Action, one of ordinary skill in the art would not have had any motivation or suggestion to combine the references as proposed by the Examiner. In particular, one of ordinary skill in the art would not have had any suggestion or motivation to modify Kanzaki to include high and low pressure sources “to

achieve recuperation of energy,” as alleged in the Office Action. While the device of Feucht is designed to recuperate energy for poppet valve opening, this is not the purpose for the usage of two pressure sources. In Feucht, the recuperation of energy is accomplished by allowing fluid flow to high pressure conduit 35 as poppet valve 11 closes (col. 6, lines 43-59), not by having high and low pressure sources.

Furthermore, one of ordinary skill in the art would not have modified Kanzaki to include features of Feucht because the engine valves of Kanzaki and Feucht operate in a completely different manner. The apparatus of Kanzaki operates to increase/decrease lift of an intake valve 11 by either supplying or not supplying pressurized oil to a high pressure chamber 33 defined by a plunger 31 and piston 27 of a device 12 shown in Fig. 2. Regardless of whether or not the chamber 33 is supplied with pressurized oil, the intake valve 11 is moved from its closed position by a camshaft 6 acting on a cam follower 6a, push rod 7, rocker arm 8, and crosshead 9 that presses against the plunger 31, piston 27 and intake valve 11. In contrast, the poppet valve 11 of Feucht is moved from its closed position without requiring a cam actuated arrangement. In particular, Feucht discloses opening the intake valve 11 by high pressure from a high pressure source 16 acting on a plunger end 65 of a driving plunger 26 to press a tappet toward the intake valve 11. In light of these substantially different principles of operation, there would have been no reason for one of ordinary skill in the art to have combined the references as proposed in the Office Action.

Claims 2-12 and 18-24 depend from and add additional features to one of independent claims 1 and 17. Accordingly, these claims are allowable over the combinations of references for at least the same reasons as the claims from which they

depend. Applicants respectfully request that the Examiner withdraw the rejections applied to these claims.

### **Claims 13 and 14**

In the rejection of claim 13 based on an asserted combination of Kanzaki and Feucht, on page 6 of the Office Action, the Examiner cited Fig. 9 of Shinojima for the asserted disclosure of the “structural realization of a control valve” and alleged that it would have been obvious to use this structural implementation in Feucht “in order to conserve energy by utilizing the stored energy in the spring.”

Applicants respectfully submit that the Section 103(a) rejection of claims 13 and 14 should be withdrawn because the Office Action has not set forth a *prima facie* case of obviousness.

Feucht shows a hydraulic actuator comprising a valve 20 which has one position P1 connecting an outlet connection 21 to a low pressure source 15 and another position connecting the outlet connection 21 to a high pressure source 16. The spool valve 53 shown in Fig. 9 of Shinojima is configured in a manner that is completely different from the valve 20 of Feucht. In particular, the spool valve 53 Shinojima has one position shown in Fig. 9(a) in which oil from an oil pump flows through an inlet supply port 53 and then through a port 60, and working oil flows through port 61 and then through port 59; and another position shown in Fig. 9(c) in which the pumped oil flows through port 58 and 61 and the working oil flows through ports 60 and 59. One of ordinary skill in the art would not modified the valve of Feucht to include features of the spool valve of Shinojima because the valve of Feucht does not require multiple fluid

outlet ports and because the spool valve of Shinojima is not used to place either a high or low pressure source in communication with an outlet.

Therefore, neither Feucht nor Shinojima, nor any combination thereof teaches or suggestions all of the subject matter of claims 13 and 14. Applicants respectfully request that the Examiner withdraw the rejection of claims 13 and 14.

### **Allowable Subject Matter**

Applicants acknowledge with appreciation the Examiner's indication of the allowability of the subject matter of claims 15, 16 and 25-34.

Claim 25 was allowed in the September 27, 2006 Office Action. It has been amended to change the recitations of "opening the valve" to "causing the valve to be open." Applicants believe claim 25 should still be allowable.

### **New Claims**

New claims 35-37 depend from claim 25 and new claim 38 depends from claim 13. Those dependent claims should be allowable for at least the same reasons as the claims from which they depend.

### **Conclusion**

Applicants respectfully request reconsideration of this application, the withdrawal of the claim rejections, and the timely allowance of the pending claims.

Applicants note that the Office Action contains several statements reflecting assertions about the pending claims and the cited references. Regardless of whether any such statement is addressed specifically above, Applicants decline to subscribe to any assertion in the Office Action.

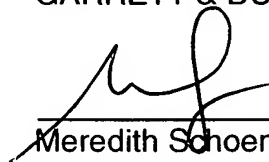
If there is any fee due in connection with the filing of this Reply, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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